

XVIVO LS™

For evaluating lungs by EVLP

XVIVO LS™ - PROVIDES A METHOD FOR EVALUATING LUNGS BY EVLP

ExVivo Lung Perfusion (EVLP) can potentially increase the number of donor lungs suitable for transplantation. The XVIVO LS™ is a lung evaluation device that is designed to simplify EVLP.

XVIVO LS™

- A compact, user-friendly device
- Intuitive step by step phases to guide you through the EVLP process:

Priming: The XVIVO LS™ and Disposable Lung Set™ (DLS™) are prepared for use

Warming: Circulation of evaluation solution and ventilation of the lungs

Evaluation: Deoxygenated solution is circulated and the lung function can be tested

Cooling: The lung is cooled to preferred temperature

Storage: The lung is stored and kept moist until time of transplantation

- A dual screen which allows all users simultaneous access to clinical information.
- Controlled and interconnected measurement of pressure and flow during lung perfusion to minimize risk of organ damage
- Proactive user guidance to support real time trouble shooting.



XVIVO LS™ Disposable Lung Set™ (DLS™)

The DLS™ is tailor-made for XVIVO LS™.

DLS™ is pre-assembled, enabling simple and quick set-up and priming.

The donor lung is kept in the same disposable unit throughout the EVLP process.

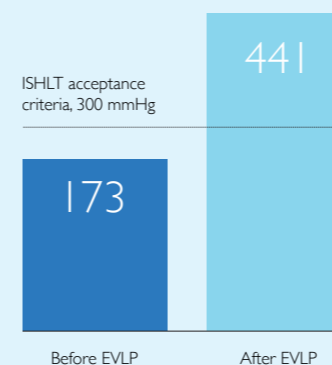


CLINICAL EXPERIENCE FROM COPENHAGEN UNIVERSITY HOSPITAL

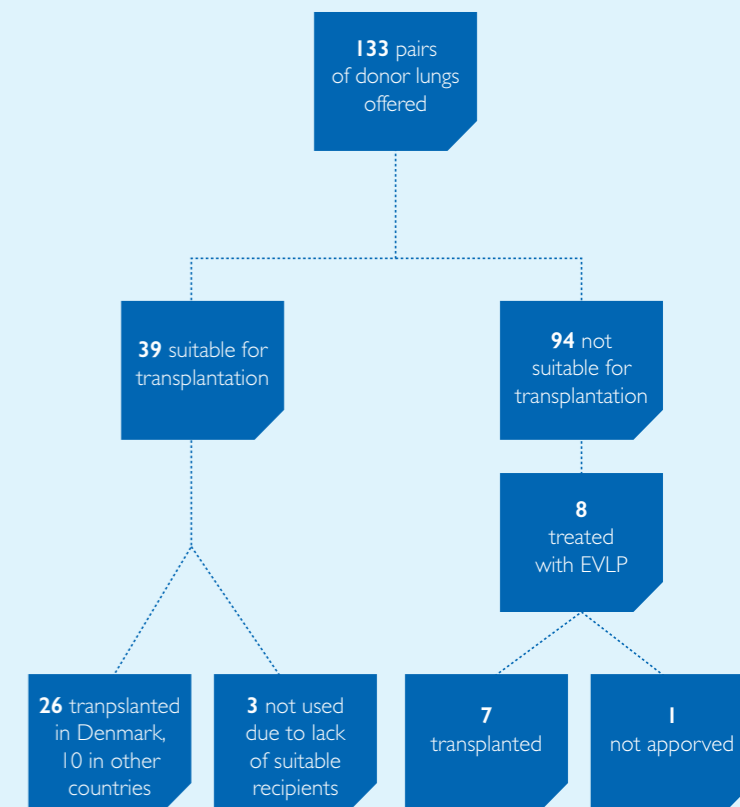
Copenhagen University hospital established an EVLP program to increase lung transplantations. Using the XVIVO LS™ system, marginal lungs were perfused and evaluated in accordance with the Scandinavian method and the number of lung transplantations was increased.

“..Seven pairs of lungs that would normally be deemed unsuitable because they failed to meet the usual criteria for transplantation were used for transplantation after EVLP. Thus, seven out of 33 (21%) Danish lung transplantations in the period were made possible as a result of EVLP..”

Henriksen, I. et al. 2014. First Danish experience with ex vivo lung perfusion of donor lungs before transplantation. Dan Med J 61(3):1-6



Median PaO₂ / FiO₂ values from seven lungs before and after EVLP at Copenhagen University Hospital.

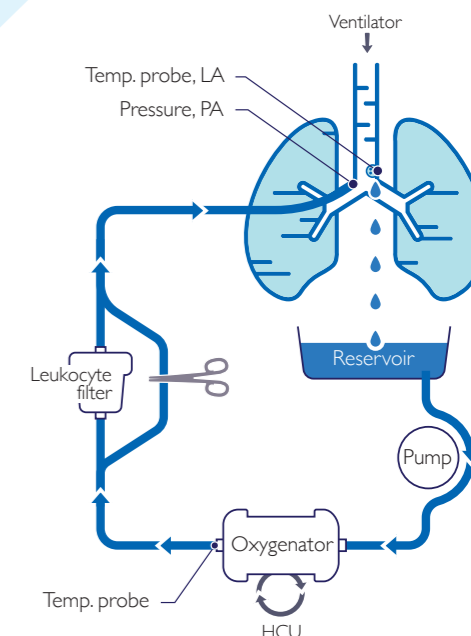


Donor offers and lung transplantations in Denmark, from 1 May 2012 to 30 April 2013.

THE SCANDINAVIAN EVLP METHOD

The XVIVO LS™ enables evaluation of marginal donor lungs according to a complete and standardized method.

- STEEN Solution™
- HCT of 10-15%
- Perfusion flow: 100% cardiac output
- Open left atrium



EVLP Training and Education

It is XVIVO Perfusion's pleasure to invite you to an EVLP workshop in Lund, Sweden. These comprehensive workshops are organized by XVIVO Perfusion and Professor Stig Steen, Lund University, Sweden.

The two-day workshop provides hands-on experience of EVLP and will cover both the theoretical and practical aspects of EVLP.

- Basic principles of normothermic EVLP
- Practical use of the XVIVO LS™ and XPS™ systems
- Current world wide experience
- The Scandinavian EVLP method and the Toronto method

For more information please contact
XVIVO Perfusion at: info@xvivoperfusion.com

About XVIVO Perfusion

XVIVO Perfusion is a medical technology company focused on developing optimized solutions for organ, tissue and cell preservation and perfusion in connection with transplantation. The company is firmly rooted in medical science.

Our mission is to increase the survival rates of patients awaiting transplantation by supporting transplant teams in every way we can.

We provide our customers with solutions and systems that can improve the transplant process outcome and expand the organ donor pool.

Publications

Ware LB, et al. Assessment of lungs rejected for transplantation and implications for donor selection. *Lancet*. 2002 Aug 24;360(9333):619-20.

Pierre AF, et al. Marginal donor lungs: a reassessment. *J Thorac Cardiovasc Surg*. 2002 Mar;123(3):421-7.

Steen S et al "Transplantation of lungs from a non-heart-beating donor. *Lancet*. 2001 Mar 17;357(9259):825-9.

Steen S, et al First human transplantation of a nonacceptable donor lung after reconditioning ex vivo. *Ann Thorac Surg*. 2007 Jun;83(6):2191-4.

Ingemansson R, et al. Clinical transplantation of initially rejected donor lungs after reconditioning ex vivo. *Ann Thorac Surg*. 2009 Jan;87(1):255-60.

Cypel M, et al. Normothermic ex vivo perfusion prevents lung injury compared to extended cold preservation for transplantation. *Am J Transplant*. 2009 Oct;9(10):2262-9.

Zych B, et al. Early outcomes of bilateral sequential single lung transplantation after ex vivo lung evaluation and reconditioning. *J Heart Lung Transplant*. 2012 Mar;31(3):274-81.

Medeiros IL, et al. Histologic and functional evaluation of lungs reconditioned by ex vivo lung perfusion. *J Heart Lung Transplant*. 2012 Mar;31(3):305-9.

Pêgo-Fernandes PM, "Ex vivo lung perfusion: early report of Brazilian experience. *Transplant Proc*. 2010 Mar;42(2):440-3.

Wierup P et al. "Ex vivo evaluation of nonacceptable donor lungs. *Ann Thorac Surg*. 2006 Feb;81(2):460-6.

Wallinder A, et al. Transplantation of initially rejected donor lungs after ex vivo lung perfusion. *J Thorac Cardiovasc Surg*. 2012 Nov;144(5):1222-8.

Stone JP et al Altered Immunogenicity of Donor Lungs via Removal of Passenger Leukocytes Using Ex Vivo Lung Perfusion, *Am J of Transpl*, 2016, Vol 16 (1);33-43

Wallinder A et al J Transplantation after ex vivo lung perfusion: A midterm follow-up. *Heart Lung Transplant*. 2016 Nov;35(11):1303-1310.

Cypel M et al S. Experience with the first 50 ex vivo lung perfusions in clinical transplantation *J Thorac Cardiovasc Surg*. 2012 Nov;144(5):1200-6

Tikkanen JM et al Functional outcomes and quality of life after normothermic ex vivo lung perfusion lung transplantation. *J Heart Lung Transplant*. 2015 Apr;34(4):547-56.

The XVIVO LS™ and DLS™ are not approved for sale in the USA.